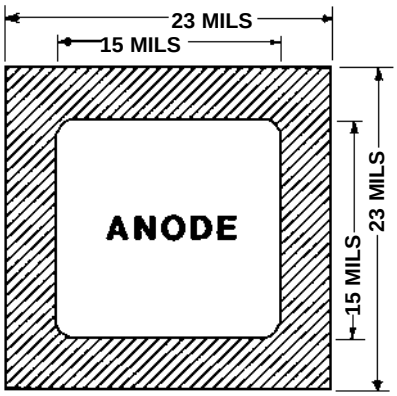
CD5221B thru CD5272B

- **ZENER DIODE CHIPS**
- **ALL JUNCTIONS COMPLETELY PROTECTED WITH SILICON DIOXIDE**
- **ELECTRICALLY EQUIVALENT TO 1N5221B THRU 1N5272B**
- **0.5 WATT CAPABILITY WITH PROPER HEAT SINKING**
- **COMPATIBLE WITH ALL WIRE BONDING AND DIE ATTACH TECHNIQUES, WITH THE EXCEPTION OF SOLDER REFLOW**

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

TYPE NUMBER	NOMINAL ZENER VOLTAGE (Note 1)	TEST CURRENT	MAXIMUM ZENER IMPEDANCE (Note 2)		MAXIMUM REVERSE CURRENT	
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK}@I_{ZK}=0.25mA	I_R @ V_R	
	VOLTS	mA	OHMS	OHMS	μA	VOLTS
CD5221B	2.4	20	30	1200	100	1.0
CD5222B	2.5	20	30	1250	100	1.0
CD5223B	2.7	20	30	1300	75	1.0
CD5224B	2.8	20	30	1400	75	1.0
CD5225B	3.0	20	29	1600	50	1.0
CD5226B	3.3	20	28	1600	25	1.0
CD5227B	3.6	20	24	1700	15	1.0
CD5228B	3.9	20	23	1900	10	1.0
CD5229B	4.3	20	22	2000	5.0	1.0
CD5230B	4.7	20	19	1900	5.0	2.0
CD5231B	5.1	20	17	1600	5.0	2.0
CD5232B	5.6	20	11	1600	5.0	3.0
CD5233B	6.0	20	7.0	1600	5.0	3.5
CD5234B	6.2	20	7.0	1000	5.0	4.0
CD5235B	6.8	20	5.0	750	3.0	5.0
CD5236B	7.5	20	6.0	500	3.0	6.0
CD5237B	8.2	20	8.0	500	3.0	6.5
CD5238B	8.7	20	8.0	600	3.0	6.5
CD5239B	9.1	20	10	600	3.0	7.0
CD5240B	10	20	17	600	3.0	8.0
CD5241B	11	20	22	600	2.0	8.4
CD5242B	12	20	30	600	1.0	9.1
CD5243B	13	9.5	13	600	0.5	9.9
CD5244B	14	9.0	15	600	0.1	10
CD5245B	15	8.5	16	600	0.1	11
CD5246B	16	7.8	17	600	0.1	12
CD5247B	17	7.4	19	600	0.1	13
CD5248B	18	7.0	21	600	0.1	14
CD5249B	19	6.6	23	600	0.1	14
CD5250B	20	6.2	25	600	0.1	15
CD5251B	22	5.6	29	600	0.1	17
CD5252B	24	5.2	33	600	0.1	18
CD5253B	25	5.0	35	600	0.1	19
CD5254B	27	4.6	41	600	0.1	21
CD5255B	28	4.5	44	600	0.1	21
CD5256B	30	4.2	49	600	0.1	23
CD5257B	33	3.8	58	700	0.1	25
CD5258B	36	3.4	70	700	0.1	27
CD5259B	39	3.2	80	800	0.1	30
CD5260B	43	3.0	93	900	0.1	33
CD5261B	47	2.7	105	1000	0.1	36
CD5262B	51	2.5	125	1100	0.1	39
CD5263B	56	2.2	150	1300	0.1	43
CD5264B	60	2.1	170	1400	0.1	46
CD5265B	62	2.0	185	1400	0.1	47
CD5266B	68	1.8	230	1600	0.1	52
CD5267B	75	1.7	270	1700	0.1	56
CD5268B	82	1.5	330	2000	0.1	62
CD5269B	87	1.4	370	2200	0.1	68
CD5270B	91	1.4	400	2300	0.1	69
CD5271B	100	1.3	500	2600	0.1	76
CD5272B	110	1.1	750	3000	0.1	84



BACKSIDE IS CATHODE

FIGURE 1

DESIGN DATA

METALLIZATION:
Top: (Anode).....Al
Back: (Cathode).....Au

AL THICKNESS.....25,000 Å Min

GOLD THICKNESS.....4,000 Å Min

CHIP THICKNESS.....10 Mils

CIRCUIT LAYOUT DATA:
For Zener operation, cathode must be operated positive with respect to anode.

TOLERANCES: ALL
Dimensions ± 2 mils

COMPENSATED DEVICES INCORPORATED
22 COREY STREET, MELROSE, MASSACHUSETTS 02176
PHONE (781) 665-1071 FAX (781) 665-7379
WEBSITE: http://www.cdi-diodes.com E-mail: mail@cdi-diodes.com

CD5221B thru CD5272B

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
Storage Temperature: -65°C to +175°C
Forward Voltage @ 200 mA: 1.5 Volts maximum

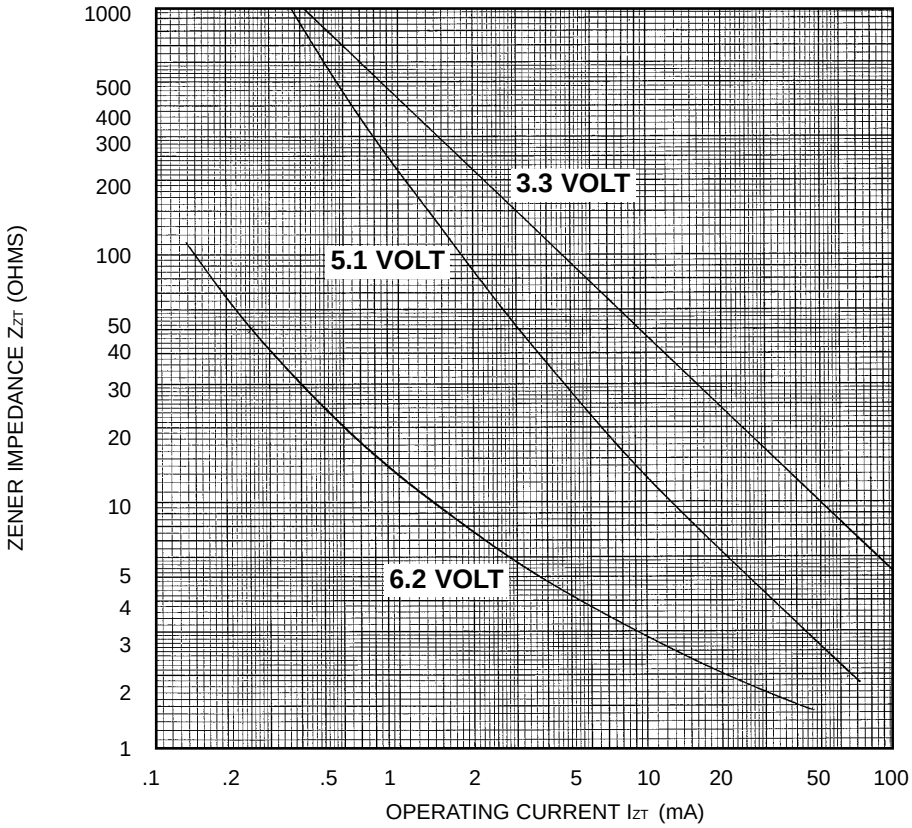


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT

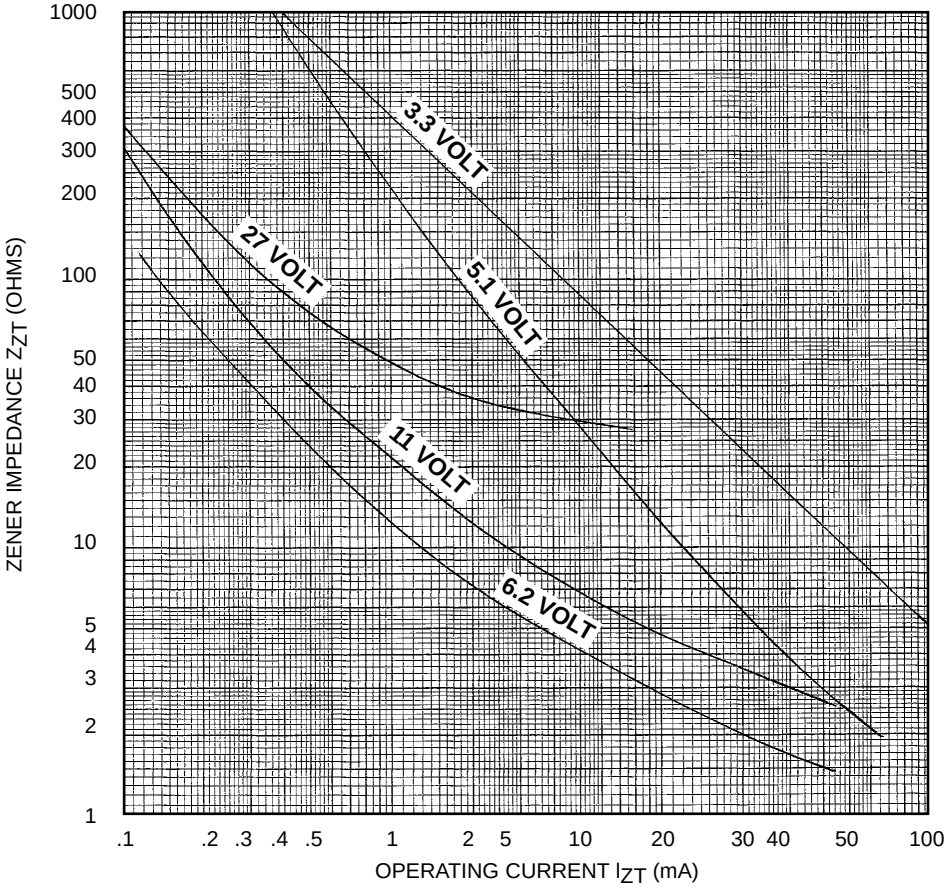


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT

NOTE 1
Zener voltage range equals "nominal Zener voltage" (see table) ± 5%, for "B" Suffix types. "A" Suffix denotes ± 10%. No Suffix denotes ± 20%. "C" suffix = ± 2% tolerance and "D" suffix = ± 1% tolerance.

NOTE 2
Zener impedance is derived by superimposing on I_{ZT} A 60 Hz rms a.c. current equal to 10% of I_{ZT}

NOTE 3
Zener voltage is read using a pulse measment, 10 miliseconds maximum.